

1 **What is claimed is:**

2       1. A network backplane interface for a local network, comprising:

3       (a) a circuit board;

4       (b) a plurality of sockets connected to the circuit board for receiving

5 plug-in network devices;

6       (c) power lines on the circuit board to one or more sockets for

7 powering a plug-in network device in each socket;

8       (d) communication lines on the circuit board to each socket for

9 communication with the plug-in network devices; and

10       (e) a housing for the circuit board, power lines and communication

11 lines, including openings for exposing said sockets.

12

13       2. The backplane of claim 1, further comprising a communication

14 controller which allows communication between the plug-in devices.

15

16       3. The backplane of claim 1, further comprising a configuration circuit

17 on the circuit board which provides configuration of one or more plug-in devices.

18

19       4. The backplane of claim 3, wherein the configuration circuit

20 communicates with a plug-in device in a socket to identify the plug-in device and

21 configure the plug-in device for network communication.

22

1        5.    The backplane of claim 3, wherein the configuration circuit  
2    comprises:

3            (1)    memory for storing configuration instructions for configuring one or  
4    more different plug-in devices, and  
5            (2)    processor for executing the configuration instructions to  
6    communicate with a plug-in device in a socket, and configure that device for  
7    network communication.

8

9        6.    The backplane of claim 3, wherein the configuration circuit includes  
10   a configuration memory having configuration information for a plurality of  
11   predetermined plug-in device types.

12

13        7.    The backplane of claim 6, wherein the configuration circuit includes  
14   extended configuration memory for storing configuration information for additional  
15   device types.

16

17        8.    The backplane of claim 3, wherein the configuration circuit includes  
18   an embedded configuration module to configure plug-in devices in a  
19   configuration session.

20

21        9.    The backplane of claim 8, wherein the configuration module  
22   configures all plug-in devices in one configuration session.

23

1           10. The backplane of claim 9, wherein the configuration module  
2 comprises a platform-independent configuration software.

3

4           11. The backplane of claim 9, wherein the configuration circuit provides  
5 a user interface for receiving user configuration commands.

6

7           12. The backplane of claim 1, wherein at least one socket is dedicated  
8 to connection and communication with an external network.

9

10          13. The backplane of claim 12, further including a switch for connecting  
11 a security module between said socket for external connection, and the local  
12 network.

13

14          14. The backplane of claim 13, further including a connection for  
15 bridging a security module between said socket for external connection, and the  
16 local network.

17

18          15. The backplane of claim 1, wherein a socket comprises a RJ-45  
19 socket.

20

21          16. The backplane of claim 1, wherein a socket comprises a proprietary  
22 connector combining power and data connections.

23

1           17. A network backplane interface for a local network, comprising:  
2           (a) a plurality of sockets for receiving plug-in network devices;  
3           (b) power lines to one or more sockets for powering a plug-in network  
4 device in each socket;  
5           (c) communication lines to each socket for communication with the  
6 plug-in network devices; and  
7           (d) a configuration module for configuration of one or more plug-in  
8 devices, wherein the configuration module communicates with each plug-in  
9 device in each socket to identify the plug-in device and configure the plug-in  
10 device for network communication.

11  
12           18. The backplane of claim 17, wherein the configuration module  
13 comprises:

14           (1) memory for storing configuration instructions for configuring one or  
15 more different plug-in devices, and  
16           (2) processor for executing the configuration instructions to  
17 communicate with a plug-in device in a socket, and configure that device for  
18 network communication.

19  
20           19. The backplane of claim 17, wherein the configuration module  
21 includes a configuration memory having configuration information for a plurality of  
22 predetermined plug-in device types.

1           20. The backplane of claim 19, wherein the configuration module  
2   includes extended configuration memory for storing configuration information for  
3   additional device types.

4

5           21. The backplane of claim 17, wherein the configuration module  
6   provides configuration of plug-in devices in a configuration session.

7

8           22. The backplane of claim 21, wherein the configuration module  
9   configures all plug-in devices in one configuration session.

10

11           23. The backplane of claim 22, wherein the configuration module  
12   comprises a platform-independent configuration software.

13

14           24. The backplane of claim 22, wherein the configuration module  
15   provides a user interface for receiving user configuration commands.

16

17           25. A network interface module for a local network, comprising:  
18           (a) a plurality of sockets for receiving plug-in network devices;  
19           (b) power lines to one or more sockets for powering a plug-in network  
20   device in each socket;  
21           (c) a switch connected to each socket allowing communication with the  
22   plug-in network devices; and

5

6 26. The network interface module of claim 25, wherein the  
7 configuration module comprises:

8 (1) memory for storing configuration instructions for configuring one or  
9 more different plug-in devices, and

10 (2) processor for executing the configuration instructions to  
11 communicate with a plug-in device in a socket, and configure that device for  
12 network communication.

13

14 27. The network interface module of claim 25, wherein the  
15 configuration module includes a configuration memory having configuration  
16 information for a plurality of predetermined plug-in device types.

17

18        28. The network interface module of claim 27, wherein the  
19 configuration module includes extended configuration memory for storing  
20 configuration information for additional device types.

21

1        29. The network interface module of claim 25, wherein the  
2 configuration module provides configuration of plug-in devices in a configuration  
3 session.

4

5        30. The network interface module of claim 29, wherein the  
6 configuration module configures all plug-in devices in one configuration session.

7

8        31. The network interface module of claim 30, wherein the  
9 configuration module comprises a platform-independent configuration software.

10

11        32. The network interface module of claim 30, wherein the  
12 configuration module provides a user interface for receiving user configuration  
13 commands.

14

15        33. The network interface module of claim 25 further comprising a  
16 backplane for the sockets, power lines, switch and configuration module.

17

18        34. The network interface module of claim 33 wherein the backplane  
19 comprises a printed circuit board.